

ABSTRACT

This disclosure provides a newly developed strategy and particular options for differentiating pluripotent stem cells into cells of the hepatocyte lineage. Many of the protocols are based on a strategy in which the cells are first differentiated into early germ layer cells, then into hepatocyte precursors, and then into mature cells. The cells obtained have morphological features and phenotypic markers characteristic of human adult hepatocytes. They also show evidence of cytochrome p450 enzyme activity, validating their utility for commercial applications such as drug screening, or use in the manufacture of medicaments and medical devices for clinical therapy.

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